

ABSTRACT

METHOD AND APPARATUS FOR AN X-DSL MODEM SUPPORTING MULTIPLE X-DSL LINE CODES

5 A method and apparatus for an X-DSL modem supporting multiple X-DSL line
codes, protocols for a plurality of channels is disclosed. Each channel is packetized and
each packet includes control information for controlling the performance of the
components/modules on the transmit and receive path. Further flexibility is derived from an
architecture which incorporates discrete and shared modules on the transmit path and the
10 receive path. The transmit path and receive path modules are collectively controlled by
control information in selected ones of the packets. This control information is used by
selected ones of the modules to appropriately process each channel in conformance with the
corresponding X-DSL protocol, operating on each channel's packets at an appropriate rate,
and protocol for the channel. The DSP exhibits a favorable form factor, and flexibility as to
15 protocols and line codes, and numbers of channels supported.